ABSTRACT

There is provided a novel pyrrole-imidazole polyamide compound for alkylating the specific base sequence of DNA, the polyamide compound being capable of being synthesized through fewer reaction steps than known hybrid molecules and having a combination of a high reactivity in DNA alkylation and the ability to recognize a sequence. Furthermore, there is provided an alkylating agent and a molecule serving as a drug, the alkylating agent and the molecule containing the polyamide compound.

An indole derivative is represented by general formula (1):

wherein R¹ represents a functional group for alkylating DNA; R² represents a hydrogen atom, an alkyl group, or an acyl group; and X represents a divalent group having one constitutional unit or having two or more constitutional units which may be the same or different, the constitutional unit being represented by the following formula:

$$\begin{bmatrix}
H \\
N \\
N
\end{bmatrix}$$
OR
$$\begin{bmatrix}
H \\
N \\
O
\end{bmatrix}$$
OR
$$\begin{bmatrix}
H \\
O \\
O
\end{bmatrix}$$

(wherein m is an integer of 0 to 10), wherein among the constitutional units, a terminal constitutional unit adjacent to R^2 may be a constitutional unit represented by the following formula:

(wherein k is an integer of 0 to 10).